Outlook

"Academic Paper."

De Ant Filos <ant.filos@outlook.com>
Data Qua, 04/02/2026 08:07
Para fabio@collaborationspharma.com <fabio@collaborationspharma.com>

Dear Dr. Urbina,

I hope you are doing well.

My name is Antônio, and I have been closely following your work that combines computational tools, machine learning, and classical molecular biology to tackle scientific problems that were once difficult to explore. I find your ability to adapt and validate novel machine-learning approaches for drug discovery particularly inspiring.

Recently, I watched the documentary Unknown: Killer Robots on Netflix, which explores what happens when machines begin to make life-or-death decisions and highlights the potential dangers of artificial intelligence in military applications . It made me reflect deeply on both the promise and the peril of AI — particularly how rapidly advancing models can benefit humanity in areas like health and drug discovery, while also raising ethical challenges when misapplied.

Given your experience at the frontier of machine learning applied to real biological and chemical systems, I would be extremely interested to hear your perspective on some questions that have been on my mind:

In your view, what are the most pressing ethical or safety concerns when applying advanced machine-learning models in drug discovery and beyond?

Do you see parallels between the concerns raised in broader AI ethics debates (such as autonomous weapons) and the development of computational tools in biomedical research?

How do you personally balance enthusiasm for innovation with caution about potential misuse or unintended consequences of new techniques?

Your leadership in extracting large experimental datasets and rapidly evaluating emerging models shows how machine learning can be harnessed for impactful science, yet my exposure to broader societal debates — like those highlighted by the documentary — makes me curious how experts in applied domains like yours perceive these dual narratives.

I would be grateful for any thoughts you can share, even briefly. Thank you very much for your time and for your contributions to the field.

Ps. 1. Question: If you managed to "simulate" the creation of a chemical agent using AI, I would like to know your opinion: Based on your findings, what guarantees can we have that this "weapon" is already in use in the current turbulent world scenario, in the hands of Trump, Putin, and Xi Jinping? Thank you. (Font: https://pmc.ncbi.nlm.nih.gov/articles/PMC9544280/)..."Dr. Fabio Urbina is mentioned as an author, and Cédric Invernizzi contributed to the article in his personal capacity.

P.S. 2. Also noted your article “Dual use of artificial-intelligence-powered drug discovery” (Nature Machine Intelligence, 2022), in which you and your colleagues explore the potential misuse of AI tools in drug discovery and the associated ethical and security implications. This perspective further deepened my curiosity about how researchers at the forefront balance, in practice, the societal benefits and risks of the technologies they develop.
https://www.linkedin.com/in/fabio-urbina-055b711a0/ A Critical Juncture: Global Security and the Age of Converging Technologies
At a global turning point, converging technologies demand coordinated action and strategies for CBRN nonproliferation and security
https://www.stimson.org/2025/a-critical-juncture-global-security-and-the-age-of-converging-technologies/

P.S. 3. Killer Robots is a 2023 documentary film exploring the implications of artificial intelligence in military applications. It highlights the advancements in AI technologies and the ethical concerns surrounding their use in warfare.
Key Details: Director: Jesse Sweet Runtime: 1 hour 8 minutes, Release Date: July 10, 2023.

Kind regards,
Antônio Garcia - Brazil
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